

My Philosophy of Instructional Technology

Jason Pigott

Instructional Technology

Dr. Tsai

March 15, 2015

Teaching in the 21st century requires an educator to be up to date on not only software, web-based tools, and hardware in the classroom but how to use these tools in effective manner. One must demand students think critically about their own learning and apply what they learned in the real world. Educators need to be able to adapt and meet the needs of a society dominated by technology. Instant feedback systems, data analysis, researching tools, and others require one to do research outside of the school day to implement effectively. As such, my own personal philosophy of education has changed to meet the needs of my learners. This paper will examine my own personal philosophy of instructional technology in the classroom, integration of technological pedagogical content knowledge (TPACK) as it relates to my teaching philosophy, 21st century tools for teaching and learning in my classroom, and illustrate my understanding of ethics as it relates to the use of technology in the classroom.

My philosophy of instructional technology in the classroom centered around the core principles of the International Society for Technology in Education (ISTE). To properly implement technology in the classroom one must ensure certain conditions are met. There are fourteen total conditions. A few important conditions according to the ISTE and my personal teaching philosophy are as follows:

- Shared vision: This means educators, administration, students, and parents have a common ground of how to use technology effectively. A “bring your own device” (BYOD) framework is a prime example of how a district could create a shared vision of technology.
- Empowered leaders: To ensure technology is used with fidelity, there needs to be leaders competent to institute programs effectively. I believe this to be very important to institute technology learning goals with fidelity. Many educators lack technology skills. As a result, they need training and the ability to ask questions to a subject matter expert, preferably an educator with roots in the classroom.
- Technical support: One needs consistent and reliable assistance for maintaining the technology needs of the district. I believe this to be paramount in how

technology is implemented at the district level. What happens when something does not work as planned? Who is there to fix things at the district level?

- Student centered learning: Planning, teaching, and assessment are centered around the needs of students. This is important to me because technology can be used in a way to make students think critically about any and all classroom content. Learners have the ability to question and supplement their learning with tools such as the internet and even more so with social media. An educator needs to ensure students know the parameters for research and how to distinguish legitimate sources from false ones. (ISTE, "Essential Conditions Necessary Conditions to Effectively Leverage Technology for Learning:", 2009).

Classroom environment is also essential for proper implementation of technology.

Students need to feel comfortable, safe, and in a least restrictive environment when it comes to learning. My classroom environment is student centric. Student work is on display in the classroom, learning targets are posted, classroom materials are in areas easily accessible to all students. I firmly believe in the idea of clear routines and expectations in the classroom. An example is my "bring your own device" (BYOD) framework in the classroom. The BYOD was implemented with the students, parents, and staff in mind. Clear guidelines such as: devices will be turned off upon exiting classroom, school WiFi must be used to track data entering the device, no pictures will be taken of staff and students with devices, and nothing will be uploaded to social media unless explicitly directed by the teacher. The BYOD policy is just one example of how expectations are addressed in my classroom. My students know what is going on at all times, when to turn in work, where the lesson is going, and what the end result is. All lessons are planned with the summative assessment in mind and we are constantly working toward the goal. I have also created a room that is connected. Classrooms should integrate into the community. I update the classroom website to ensure parents know what is going on. A syllabus is handed out at the beginning of the school with all

of my contact information. Parents, students, staff, and administration know exactly where we are and where we heading in our journey of learning.

Technology plays a key role in the learning process. My SMARTboard displays activities of the day, classroom website and email maintain proper communication with staff, students, and parents. All lessons are taught, and assessed with strong technology components coupled with student choice. Technology, pedagogy, and content knowledge (TPACK) are fundamental to creating meaningful lessons for 21st learners to comprehend course material and to think critically about course material. There are many ways to create a lesson and assess learning. Harris and Hofer argue in the Instructional Planning Activity Types as Vehicles for Curriculum-based TPACK Development research, “While in many cases teachers may want their students to express similar understandings of course content, at other times they will want to encourage students to develop and express their own understandings of a given topic” (Harris, J., & Hofer, M. 2009). I personally believe these components are not only necessary but are nonnegotiable. Educators need to be flexible and understand students can be assessed and taught in many different ways. Learners are diverse and their needs are different on a student-by-student basis. The use of technology can help with the diverse needs of our learners. When analyzing at TPACK one must be cognizant of all three aspects, how each part is connected with the other, and all parts are required for meaningful learning to occur (Koehler pg. 21, 2008). A typical lesson in my classroom involves new vocabulary. I front load new vocabulary before we begin a new section or unit of study. The learning target for this particular lesson is: I can identify and define the following terms: tyranny,

oligarchy, and democracy. To be successful and assess student understanding one must integrate the principles of TPACK. To define the words, small group instruction is needed to apply these terms into meaningful contexts (pedagogy), words will then be applied to the word wall to reinforce multiple exposures (pedagogy), use of synonyms for these words (teacher content knowledge), visuals for the words can be found on the internet (technology), learners are then formatively assessed on their knowledge of the terms will be on a web based tool such as socrative.com or voicethread.com (technology), and students then create a vocabulary journal as their summative assessment on a googledoc to be edited with other learners in the classroom (technology). The googledoc could then be exported to a word file and uploaded to edmodo.com (technology). The document is then graded, providing instant feedback to students and parents. All of these activities are linked, building upon each other. Each one of these components are necessary in creating meaningful learning opportunities for all students.

21st century skills demand students to be able to do more in complex global society. According to the Partnership for 21st Century Skills, “Within the context of core knowledge instruction, students must also learn the essential skills for success in today’s world, such as critical thinking, problem solving, communication and collaboration” (P21 Framework Definitions, 2009). All lessons should reflect an adherence to these principles. When combined with the principles of TPACK, teachers must do more to ensure the success of students outside of the classroom. Students need to work well with others, understand how to collaborate, look at the world without ethnocentricity, assess and analyze sources and their validity, and apply technology effectively to be successful in the modern world. In my classroom, I expect all of my

students to critically think about content. Although I am the subject matter expert in the classroom, I want my students to constantly challenge what they learn. I want my learners to think “outside of the box” and from all angles. The focus of all lessons is objectivity. I do not want my learners to be incorrigible rather I want them to grow. The wealth of information available via the internet provides the students the opportunity to learn and be exposed to new things. As a result, we examine documents from a variety of sources (electronic and print), do small group activities heterogeneous in nature, and exposed to multiple cultures and their experiences to justify what we are learning. Tools one could use to develop 21st century skills are many. One could use distance learning to collaborate with students in classrooms around the world, visit museums in distant lands, and even talk to National Aeronautical Space Administration (NASA). Learners can also use sites such as jstor.org to find scholarly articles normally housed in universities. Students can use web based applications such as googledocs and “hangouts” to collaborate on a project or generate ideas. The possibilities are endless and ever changing. Again, one needs to remain flexible and be able to adapt to an ever-changing cyber environment.

Educators integrating the TPACK way of learning and instruction coupled with full integration of 21st century skills students must have to complete in a global society are required to cognizant of the intellectual property of others. Learners in the 21st century (“millennials” especially) have trouble understanding what copyright laws entail. They have grown up in a cut, copy, paste way of doing things on the internet to be more efficient. Educators must teach their students the importance of copyright and how to properly cite sources. But what about educators and their lesson plans? Teaching has the mentality of “beg, borrow, and steal.” This essentially

means to use what you can to be a better teacher for your learners. What works somewhere else can be tweaked to meet the needs of your students. Usually, this is done without asking the teacher who created the lesson or activity. This could violate copyright law (Russell, 2012). I find lessons online all the time. I want to ensure I do not steal a colleagues ideas and I always ask before I use it in the classroom.

My philosophy of instructional technology is one of constant adaptation to my students and their needs. As educators we have a hard role in preparing students for a world we do not yet live in. We need to be able to adapt and be flexible to the demands of our students and the needs of society.

References

Essential Conditions Necessary Conditions to Effectively Leverage Technology for Learning:.

(2009, January 1). Retrieved March 10, 2015, from <http://www.iste.org/docs/pdfs/netsessentialconditions.pdf?sfvrsn=2>

Harris, J., & Hofer, M. (2009). Instructional Planning Activity Types as Vehicles for Curriculum-based TPACK Development. In C. D. Maddux, (Ed.). *Research highlights in technology and teacher education 2009* (pp. 99-108). Chesapeake, VA: Society for Information Technology in Teacher Education (SITE).

Koehler, M., & Mishra, P. (2008). Introducing TPCK. In *Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators*. New York: Routledge for the American Association of Colleges for Teacher Education.

P21 Framework Definitions (2009, December 1). Retrieved March 10, 2015, from http://www.p21.org/storage/documents/P21_Framework_Definitions.pdf

Russell, C. (2012, July 2). Copyright for Librarians and Teachers, in a Nutshell. Retrieved March 10, 2015, from <http://americanlibrariesmagazine.org/2012/07/02/copyright-for-librarians-and-teachers-in-a-nutshell/>